



State of Utah

Department of  
Environmental Quality

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Site ID: 11362

## Title V Operating Permit

**PERMIT NUMBER: 3500536001**

**DATE OF PERMIT: May 21, 2002**

Date of Last Revision: October 26, 2004

This Operating Permit is issued to, and applies to the following:

**Name of Permittee:**

Salt Lake Valley Solid Waste Management  
6030 West 1300 South  
Salt Lake City, UT 84104

**Permitted Location:**

Salt Lake Valley Landfill & Transfer Station  
6030 West 1300 South  
Salt Lake City, UT 84104

UTM coordinates: 4,510,408 meters Northing, 412,867 meters Easting  
SIC code: 4953

## ABSTRACT

The Salt Lake Valley Solid Waste Management Facility operates the Salt Lake Valley Landfill, an municipal solid waste (MSW) landfill located in Salt Lake County, Utah. The facility accepts municipal and industrial waste. Salt Lake Valley Landfill is a Title V source because 40 CFR 60 Subpart WWW and our State Plan for MSW landfills (Subpart Cc) have required all landfills over 2.5 million megagrams to submit a Title V application. Salt Lake Valley Landfill is subject to 40 CFR 63, Subpart AAAA-NESHAP for Municipal Solid Waste Landfills, 40 CFR 60, Subpart A - General Provisions and to 40 CFR Subpart Cc - Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills. Salt Lake Valley Landfill is also subject to Subpart M of the National Emission Standards for Hazardous Air Pollutants (NESHAP) -National Emission Standards for Asbestos: Standards for Active Waste Disposal Sites (40 CFR 61.154) as well as to Subpart A - General Provisions of the National Emission Standards for Hazardous Air Pollutants (NESHAP).

## UTAH AIR QUALITY BOARD

By:

Richard W. Sprott, Executive Secretary

Prepared By:

James Chapman

## Operating Permit History

5/21/2002 - Permit issued	Action initiated by an initial operating permit application	
10/26/2004 -Permit modified	Action initiated by a reopening of an operating permit for cause	to incorporate requirements from new MACT standard 40 CFR Part 63 Subpart AAAA

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**Issued under authority of Utah Code Ann. Section 19-2-104 and 19-2-109.1, and in accordance with Utah Administrative Code R307-415 Operating Permit Requirements.**

All definitions, terms and abbreviations used in this permit conform to those used in Utah Administrative Code R307-101 and R307-415 (Rules), and 40 Code of Federal Regulations (CFR), except as otherwise defined in this permit. Unless noted otherwise, references cited in the permit conditions refer to the Rules.

Where a permit condition in Section I, General Provisions, partially recites or summarizes an applicable rule, the full text of the applicable portion of the rule shall govern interpretations of the requirements of the rule. In the case of a conflict between the Rules and the permit terms and conditions of Section II, Special Provisions, the permit terms and conditions of Section II shall govern except as noted in Provision I.M, Permit Shield.

**Section I: General Provisions**

**I.A. Federal Enforcement.**

All terms and conditions in this permit, including those provisions designed to limit the potential to emit, are enforceable by the EPA and citizens under the Clean Air Act of 1990 (CAA) except those terms and conditions that are specifically designated as "State Requirements". (R307-415-6b)

**I.B. Permitted Activity(ies).**

Except as provided in R307-415-7b(1), the permittee may not operate except in compliance with this permit. (See also Provision I.E, Application Shield)

**I.C. Duty to Comply.**

- I.C.1 The permittee must comply with all conditions of the operating permit. Any permit noncompliance constitutes a violation of the Air Conservation Act and is grounds for any of the following: enforcement action; permit termination; revocation and reissuance; modification; or denial of a permit renewal application. (R307-415-6a(6)(a))
- I.C.2 It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (R307-415-6a(6)(b))
- I.C.3 The permittee shall furnish to the Executive Secretary, within a reasonable time, any information that the Executive Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Executive Secretary copies of records required to be kept by this permit or, for information claimed to be confidential, the permittee may furnish such records directly to the EPA along with a claim of confidentiality. (R307-415-6a(6)(e))
- I.C.4 This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance shall not stay any permit condition, except as provided under R307-415-7f(1) for minor permit modifications. (R307-415-6a(6)(c))

**I.D. Permit Expiration and Renewal.**

**I.D.1 This permit is issued for a fixed term of five years and expires on May 21, 2007. (R307-415-6a(2))**

**I.D.2** Application for renewal of this permit is due by November 21, 2006. An application may be submitted early for any reason. (R307-415-5a(1)(c))

**I.D.3** An application for renewal submitted after the due date listed in I.D.2 above shall be accepted for processing, but shall not be considered a timely application and shall not relieve the permittee of any enforcement actions resulting from submitting a late application. (R307-415-5a(5))

**I.D.4** Permit expiration terminates the permittee's right to operate unless a timely and complete renewal application is submitted consistent with R307-415-7b (see also Provision I.E, Application Shield) and R307-415-5a(1)(c) (see also Provision I.D.2). (R307-415-7c(2))

**I.E. Application Shield.**

If the permittee submits a timely and complete application for renewal, the permittee's failure to have an operating permit will not be a violation of R307-415, until the Executive Secretary takes final action on the permit renewal application. In such case, the terms and conditions of this permit shall remain in force until permit renewal or denial. This protection shall cease to apply if, subsequent to the completeness determination required pursuant to R307-415-7a(3), and as required by R307-415-5a(2), the applicant fails to submit by the deadline specified in writing by the Executive Secretary any additional information identified as being needed to process the application. (R307-415-7b(2))

**I.F. Severability.**

In the event of a challenge to any portion of this permit, or if any portion of this permit is held invalid, the remaining permit conditions remain valid and in force. (R307-415-6a(5))

**I.G. Permit Fee.**

**I.G.1** The permittee shall pay an annual emission fee to the Executive Secretary consistent with R307-415-9. (R307-415-6a(7))

**I.G.2** The emission fee shall be due on October 1 of each calendar year or 45 days after the source receives notice of the amount of the fee, whichever is later. (R307-415-9(4)(a))

**I.H. No Property Rights.**

This permit does not convey any property rights of any sort, or any exclusive privilege. (R307-415-6a(6)(d))

**I.I. Revision Exception.**

No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit. (R307-415-6a(8))

**I.J. Inspection and Entry.**

I.J.1 Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Executive Secretary or an authorized representative to perform any of the following:

I.J.1.a Enter upon the permittee's premises where the source is located or emissions related activity is conducted, or where records are kept under the conditions of this permit. (R307-415-6c(2)(a))

I.J.1.b Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit. (R307-415-6c(2)(b))

I.J.1.c Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practice, or operation regulated or required under this permit. (R307-415-6c(2)(c))

I.J.1.d Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with this permit or applicable requirements. (R307-415-6c(2)(d))

I.J.2 Any claims of confidentiality made on the information obtained during an inspection shall be made pursuant to Utah Code Ann. Section 19-1-306. (R307-415-6c(2)(e))

**I.K. Certification.**

Any application form, report, or compliance certification submitted pursuant to this permit shall contain certification as to its truth, accuracy, and completeness, by a responsible official as defined in R307-415-3. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. (R307-415-5d)

**I.L. Compliance Certification.**

I.L.1 Permittee shall submit to the Executive Secretary an annual compliance certification, certifying compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. This certification shall be submitted no later than **April 15, 2005** and that date each year following until this permit expires. The certification shall include all the following (permittee may cross-reference this permit or previous reports): (R307-415-6c(5))

I.L.1.a The identification of each term or condition of this permit that is the basis of the certification;

I.L.1.b The identification of the methods or other means used by the permittee for determining the compliance status with each term and condition during the certification period. Such methods and other means shall include, at a minimum, the monitoring and related recordkeeping and reporting requirements in this permit. If necessary, the permittee also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Act, which prohibits knowingly making a false certification or omitting material information;

I.L.1.c The status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the method or means

designated in Provision I.L.1.b. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance as defined under 40 CFR Part 64 occurred; and

I.L.1.d Such other facts as the Executive Secretary may require to determine the compliance status.

I.L.2 The permittee shall also submit all compliance certifications to the EPA, Region VIII, at the following address or to such other address as may be required by the Executive Secretary: (R307-415-6c(5)(d))

Office of Enforcement, Compliance and Environmental Justice  
(mail code 8ENF)  
EPA, Region VIII  
999 18th Street, Suite 300  
Denver, CO 80202-2466

**I.M. Permit Shield.**

I.M.1 Compliance with the provisions of this permit shall be deemed compliance with any applicable requirements as of the date of this permit, provided that:

I.M.1.a Such applicable requirements are included and are specifically identified in this permit, or (R307-415-6f(1)(a))

I.M.1.b Those requirements not applicable to the source are specifically identified and listed in this permit. (R307-415-6f(1)(b))

I.M.2 Nothing in this permit shall alter or affect any of the following:

I.M.2.a The emergency provisions of Utah Code Ann. Section 19-1-202 and Section 19-2-112, and the provisions of the CAA Section 303. (R307-415-6f(3)(a))

I.M.2.b The liability of the owner or operator of the source for any violation of applicable requirements under Utah Code Ann. Section 19-2-107(2)(g) and Section 19-2-110 prior to or at the time of issuance of this permit. (R307-415-6f(3)(b))

I.M.2.c The applicable requirements of the Acid Rain Program, consistent with the CAA Section 408(a). (R307-415-6f(3)(c))

I.M.2.d The ability of the Executive Secretary to obtain information from the source under Utah Code Ann. Section 19-2-120, and the ability of the EPA to obtain information from the source under the CAA Section 114. (R307-415-6f(3)(d))

**I.N. Emergency Provision.**

I.N.1 An “emergency” is any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-

based emission limitation under this permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error. (R307-415-6g(1))

- I.N.2 An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the affirmative defense is demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
- I.N.2.a An emergency occurred and the permittee can identify the causes of the emergency. (R307-415-6g(3)(a))
- I.N.2.b The permitted facility was at the time being properly operated. (R307-415-6g(3)(b))
- I.N.2.c During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in this permit. (R307-415-6g(3)(c))
- I.N.2.d The permittee submitted notice of the emergency to the Executive Secretary within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. This notice fulfills the requirement of Provision I.S.2.c below. (R307-415-6g(3)(d))
- I.N.3 In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof. (R307-415-6g(4))
- I.N.4 This emergency provision is in addition to any emergency or upset provision contained in any other section of this permit. (R307-415-6g(5))

**I.O. Operational Flexibility.**

Operational flexibility is governed by R307-415-7d(1).

**I.P. Off-permit Changes.**

Off-permit changes are governed by R307-415-7d(2).

**I.Q. Administrative Permit Amendments.**

Administrative permit amendments are governed by R307-415-7e.

**I.R. Permit Modifications.**

Permit modifications are governed by R307-415-7f.

**I.S. Records and Reporting.**

**I.S.1 Records.**

- I.S.1.a The records of all required monitoring data and support information shall be retained by the permittee for a period of at least five years from the date of the monitoring sample,

measurement, report, or application. Support information includes all calibration and maintenance records, all original strip-charts or appropriate recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. (R307-415-6a(3)(b)(ii))

- I.S.1.b For all monitoring requirements described in Section II, Special Provisions, the source shall record the following information, where applicable: (R307-415-6a(3)(b)(i))
- I.S.1.b.1 The date, place as defined in this permit, and time of sampling or measurement.
- I.S.1.b.2 The date analyses were performed.
- I.S.1.b.3 The company or entity that performed the analyses.
- I.S.1.b.4 The analytical techniques or methods used.
- I.S.1.b.5 The results of such analyses.
- I.S.1.b.6 The operating conditions as existing at the time of sampling or measurement.
- I.S.1.c Additional record keeping requirements, if any, are described in Section II, Special Provisions.
- I.S.2 Reports.
- I.S.2.a Monitoring reports shall be submitted to the Executive Secretary every six months, or more frequently if specified in Section II. All instances of deviation from permit requirements shall be clearly identified in the reports. (R307-415-6a(3)(c)(i))
- I.S.2.b All reports submitted pursuant to Provision I.S.2.a shall be certified by a responsible official in accordance with Provision I.K of this permit. (R307-415-6a(3)(c)(i))
- I.S.2.c The Executive Secretary shall be notified promptly of any deviations from permit requirements including those attributable to upset conditions as defined in this permit, the probable cause of such deviations, and any corrective actions or preventative measures taken. **Prompt, as used in this condition, shall be defined as written notification within 14 days.** Deviations from permit requirements due to unavoidable breakdowns shall be reported in accordance with the provisions of R307-107. (R307-415-6a(3)(c)(ii))
- I.S.3 Notification Addresses.
- I.S.3.a All reports, notifications, or other submissions required by this permit to be submitted to the Executive Secretary are to be sent to the following address or to such other address as may be required by the Executive Secretary:

Utah Division of Air Quality  
P.O. Box 144820  
Salt Lake City, UT 84114-4820  
Phone: 801-536-4000

- I.S.3.b All reports, notifications or other submissions required by this permit to be submitted to the EPA should be sent to one of the following addresses or to such other address as may be required by the Executive Secretary:

For annual compliance certifications

Environmental Protection Agency, Region VIII  
Office of Enforcement, Compliance and  
Environmental Justice (mail code 8ENF)  
999 18th Street, Suite 300  
Denver, CO 80202-2466

For reports, notifications, or other correspondence  
related to permit modifications, applications, etc.

Environmental Protection Agency, Region VIII  
Office of Partnerships & Regulatory Assistance  
Air & Radiation Program (mail code 8P-AR)  
999 18th Street, Suite 300  
Denver, CO 80202-2466  
Phone: 303-312-6440

**I.T. Reopening for Cause.**

- I.T.1 A permit shall be reopened and revised under any of the following circumstances:

I.T.1.a New applicable requirements become applicable to the permittee and there is a remaining permit term of three or more years. No such reopening is required if the effective date of the requirement is later than the date on which this permit is due to expire, unless the terms and conditions of this permit have been extended pursuant to R307-415-7c(3), application shield. (R307-415-7g(1)(a))

I.T.1.b The Executive Secretary or EPA determines that this permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit. (R307-415-7g(1)(c))

I.T.1.c EPA or the Executive Secretary determines that this permit must be revised or revoked to assure compliance with applicable requirements. (R307-415-7g(1)(d))

I.T.1.d Additional applicable requirements are to become effective before the renewal date of this permit and are in conflict with existing permit conditions. (R307-415-7g(1)(e))

I.T.2 Proceedings to reopen and issue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. (R307-415-7g(2))

**I.U. Inventory Requirements.**

Emission inventories shall be submitted in accordance with the procedures of R307-150, Emission Inventories. (R307-150)

## **Section II: SPECIAL PROVISIONS**

### **II.A. Emission Unit(s) Permitted to Discharge Air Contaminants.**

(R307-415-4(3)(a) and R307-415-4(4))

#### **II.A.1 MSW Landfill** (designated as Landfill)

Unit Description: Class V Sanitary Landfill with a 24,571,428 Mg capacity. Opened in 1982, no modification since May 30, 1991. NSPS Cc applies to this unit.

#### **II.A.2 Cold Cleaning Unit** (designated as Parts Washer)

Unit Description: Two small parts washers/vapor degreasers. Serviced by off site manufacturer.

#### **II.A.3 Misc. Tanks** (designated as Tanks)

Unit Description: Three fuel storage tanks, a 10,000 gallon diesel fuel, a 6,000 gallon diesel, and a 3,000 gallon unleaded fuel tank. No unit-specific applicable requirements.

#### **II.A.4 Generators** (designated as Generators)

Unit Description: Three diesel fired generators. No unit-specific applicable requirements.

### **II.B. Requirements and limitations.**

The following emission limitations, standards, and operational limitations apply to the permitted facility as indicated: (R307-415-6a(1))

#### **II.B.1 Conditions on permitted source (Source-wide)**

##### **II.B.1.a Condition:**

Visible emissions caused by fugitive dust shall not exceed 10% at the property boundary, and 20% onsite except during periods when wind speeds exceed 25 miles per hour and control measures in the most recently approved fugitive dust control plan are being taken. [Authority granted under R307-309-3(1) & R307-309-4(3); condition originated in R307-309-3 through 7]

##### **II.B.1.a.1 Monitoring:**

In lieu of monitoring via visible emissions observations, adherence to the most recently approved fugitive dust control plan shall be monitored to demonstrate that appropriate measures are being implemented to control fugitive dust.

##### **II.B.1.a.2 Recordkeeping:**

Records of measures taken to control fugitive dust shall be maintained to demonstrate adherence to the most recently approved fugitive dust control plan. If wind speeds are measured to establish an exception from the above visible emissions limits, records of those measurements shall be maintained. Records shall be maintained as described in Provision I.S.1 of this permit.

##### **II.B.1.a.3 Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

##### **II.B.1.b Condition:**

Visible emissions shall be no greater than 20 percent opacity. [Authority granted under R307-201-1(1); condition originated in R307-201-1]

II.B.1.b.1

**Monitoring:**

A visual opacity survey of each affected emission unit shall be performed on a quarterly basis by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9. If visible emissions other than steam are observed from an emission unit, an opacity determination of that emission unit shall be performed by a certified observer within 24 hours of the initial survey. The opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9 for point sources, and in accordance with 58 FR 61640 Method 203C for fugitive emission sources.

II.B.1.b.2

**Recordkeeping:**

The permittee shall record the date of each visual opacity survey and keep a list of the emission points checked during the visual opacity survey. The permittee shall also keep a log of the following information for each observed visual emission: date and time visual emissions observed, emission point location and description, time and date of opacity test, and percent opacity. The records required by this provision and all data required by 40 CFR 60, Appendix A, Method 9 shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.1.b.3

**Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.1.c

**Condition:**

Sulfur content of any fuel oil combusted shall be no greater than 0.85 lb/MMBtu heat input. [Authority granted under R307-203-1; condition originated in R307-203]

II.B.1.c.1

**Monitoring:**

For each delivery of oil, the permittee shall either:

- (1) Determine the fuel sulfur content expressed as lb/MMBtu in accordance with the methods of the American Society for Testing Materials (ASTM) and Equation 1;
- (2) Inspect the fuel sulfur content expressed as lb/MMBtu determined by the vendor using methods of the ASTM and Equation 1; or
- (3) Inspect documentation provided by the vendor that indirectly demonstrates compliance with this provision.

Equation 1:

Fuel Sulfur Content, lb/MMBtu = [(Weight percent sulfur/100) x Density (lb/gal)] / [(gross heating value (Btu/gal)) x (1 MMBtu/1,000,000 Btu)]

II.B.1.c.2

**Recordkeeping:**

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.1.c.3

**Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.1.d

**Condition:**

The permittee shall comply with the applicable requirements for recycling and emission reduction for class I and class II refrigerants pursuant to 40 CFR 82, Subpart F - Recycling and Emissions Reduction. [Authority granted under 40 CFR 82.150(b); condition originated in 40 CFR 82.150(b)]

II.B.1.d.1

**Monitoring:**

The permittee shall certify, in the annual compliance statement required in Section I of this permit, its compliance status with the requirements of 40 CFR 82, Subpart F.

II.B.1.d.2

**Recordkeeping:**

All records required in 40 CFR 82, Subpart F shall be maintained consistent with the requirements of Provision S.1 in Section I of this permit.

II.B.1.d.3

**Reporting:**

All reports required in 40 CFR 82, Subpart F shall be submitted as required. There are no additional reporting requirements except as outlined in Section I of this permit.

II.B.1.e

**Condition:**

Records shall be maintained of the material (salt, crushed slag, or sand) applied to the roads by the permitted source. [Authority granted under R307-307; condition originated in R307-307]

II.B.1.e.1

**Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.1.e.2

**Recordkeeping:**

The following records shall be maintained as outlined in Provision I.S.1 of this permit:

For Salt - the quantity applied, the percent by weight of insoluble solids in the salt, and the percentage of the material that is sodium chloride (NaCl).

For Sand or Crushed Slag - the quantity applied and the percent by weight of fine material which passes the number 200 sieve in a standard gradation analysis. (origin: R307-307)

II.B.1.e.3

**Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.2

**Conditions on MSW Landfill ( Landfill)**

II.B.2.a

**Condition:**

**(The calculated Non-Methane Organic Compounds (NMOC) emission rate is equal to or greater than 50 megagrams per year.)**

The permittee shall:

(a) Submit a collection and control system design plan prepared by a professional engineer to the Executive Secretary on or before June 15, 1999 **(Salt Lake Valley Landfill submitted a design plan on June 15<sup>th</sup>, 1999):**

(1) The collection and control system as described in the plan shall meet the design requirements of paragraph (b) of this condition.

(2) The collection and control system design plan shall include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions proposed by the permittee.

(3) The collection and control system design plan shall either conform with specifications for active collection systems in 40 CFR 60.759 or include a demonstration to the Executive Secretary's satisfaction of the sufficiency of the alternative provisions to 40 CFR 60.759.

(4) The Executive Secretary shall review the information submitted under paragraphs (a)(1), (2) and (3) of this condition and either approve it, disapprove it, or request that additional information be submitted. Because of the many site-specific factors involved with landfill gas system design, alternative systems may be necessary. A wide variety of system designs are possible, such as vertical wells, combination horizontal and vertical collection systems, or horizontal trenches only, leachate collection components, and passive systems.

(b) Install a collection and control system that captures the gas generated within the landfill as required by paragraphs (b)(1) or (2) and (c) of this condition within 30 months after the first annual report in which the emission rate equals or exceeds 50 megagrams per year, unless Tier 2 or tier 3 sampling demonstrates that the emission rate is less than 50 megagrams per year, as specified in 40 CFR 60.757(c)(1) or (2). **(Salt Lake Valley Landfill completed installation and testing of an active collection and control system by December 15th, 2000, which was 30 months after the first annual report in which the emission rate equals or exceeds 50 megagrams per year)**

(1) An active collection system shall:

(i) Be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment;

(ii) Collect gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of:

(A) 5 years or more if active; or

(B) 2 years or more if closed or at final grade.

(iii) Collect gas at a sufficient extraction rate;

(iv) Be designed to minimize off-site migration of subsurface gas.

(2) A passive collection system shall:

(i) Comply with the provisions specified in paragraphs (b)(1)(i), (ii), and (b)(1)(iv) of this condition.

(ii) Be installed with liners on the bottom and all sides in all areas in which gas is to be collected. The liners shall be installed as required under 40 CFR 258.40.

(c) Route all the collected gas to a control system that complies with the requirements in either paragraph (c)(1), (c)(2) or (c)(3) of this condition. **(At the time of permit issuance, Salt Lake Valley Landfill chose to comply with the requirements of (c) (2) of this condition)**

(1) An open flare designed and operated in accordance with 40 CFR 60.18

(2) Reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen. The reduction efficiency or parts per million by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using the test methods specified in paragraph (b) of monitoring. **(Salt Lake Valley Landfill met the less than 20 ppm NMOC requirement on September 7, 2001. They were issued a compliance violation for not meeting it within 180 days of startup.)**

(i) If a boiler or process heater is used as the control device, the landfill gas stream shall be introduced into the flame zone.

(ii) The control device shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in paragraphs (h) thru (m) of monitoring;

(3) Route the collected gas to a treatment system that processes the collected gas for subsequent sale or use. All emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of paragraph (c)(1) or (c)(2) of this condition.

(d) The collection and control system may be capped or removed provided that all the following conditions are met:

(1) The landfill shall be a closed landfill as defined in 40 CFR 60.751. A closure report shall be submitted to the Executive Secretary as provided in paragraph (a) of reporting;

(2) The collection and control system shall have been in operation a minimum of 15 years; and

(3) Following the procedures specified in paragraph (a) of monitoring, the calculated NMOC gas produced by the landfill shall be less than 50 megagrams per year on three successive test dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart.

(e) Operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for:

(1) 5 years or more if active; or

(2) 2 years or more if closed or at final grade;

(f) Operate the collection system with negative pressure at each wellhead except under the following conditions:

(1) A fire or increased well temperature. The permittee shall record instances when positive pressure occurs in efforts to avoid a fire. These records shall be submitted with the annual reports as provided in paragraph (c) of reporting;

(2) Use of a geomembrane or synthetic cover. The permittee shall develop acceptable pressure limits in the design plan;

(3) A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes shall be approved by the Executive Secretary;

(g) Operate each interior wellhead in the collection system with a landfill gas temperature less than 55 C and with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. The permittee may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.

(h) Operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill. To determine if this level is exceeded, the permittee shall conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. The permittee may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan shall be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30 meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing.

(i) Operate the system such that all collected gases are vented to a control system designed and operated in compliance with paragraph (c). In the event the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within 1 hour; and

(j) Operate the control or treatment system at all times when the collected gas is routed to the system.

(k) If monitoring demonstrates that the operational requirements in paragraphs (f), (g), or (h) of this condition are not met, corrective action shall be taken as specified in paragraph (c) (3) through (5) of monitoring or paragraph (e) of monitoring. If corrective actions are taken as specified in monitoring, the monitored exceedance is not a violation of the operational requirements in this condition.

(l) Operate the collection and control device installed to comply with this condition in accordance with the provisions of paragraph (a) through (k) of this condition as well as the monitoring, recordkeeping and reporting of this condition.

(m) Develop and implement a written start-up, shut-down and malfunction (SSM) plan in accordance with 40 CFR 63.6(e)(3). A copy of the SSM plan must be maintained on

site. (Salt Lake Valley Landfill submitted an SSM plan to Utah DAQ on January 16<sup>th</sup> 2004)

[Authority granted under R307-221, 40 CFR 63 Subpart AAAA; condition originated in R307-221, 40 CFR 63 Subpart AAAA]

II.B.2.a.1

**Monitoring:**

(a) After the installation of a collection and control system in compliance with paragraph (c) of this monitoring section, the permittee shall calculate the NMOC emission rate for purposes of determining when the system can be removed as provided in paragraph (d) of the condition, using the following equation:

$$(M_{\text{NMOC}}) = 1.89 \times 10^{-3} (Q_{\text{LFG}})(C_{\text{NMOC}})$$

where,

$M_{\text{NMOC}}$  = mass emission rate of NMOC, megagrams per year

$Q_{\text{LFG}}$  = flow rate of landfill gas, cubic meters per minute

$C_{\text{NMOC}}$  = NMOC concentration, parts per million by volume as hexane

(1) The flow rate of landfill gas,  $Q_{\text{LFG}}$ , shall be determined by measuring the total landfill gas flow rate at the common header pipe that leads to the control device using a gas flow measuring device calibrated according to the provisions of section 4 of Method 2E of appendix A of 40 CFR 60.

(2) The average NMOC concentration,  $C_{\text{NMOC}}$ , shall be determined by collecting and analyzing landfill gas sampled from the common header pipe before the gas moving or condensate removal equipment using the procedures in Method 25C or Method 18 of appendix A of 40 CFR 60. If using Method 18 of appendix A of 40 CFR 60, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The sample location on the common header pipe shall be before any condensate removal or other gas refining units. The landfill permittee shall divide the NMOC concentration from Method 25C of appendix A of 40 CFR 60 by six to convert from  $C_{\text{NMOC}}$  as carbon to  $C_{\text{NMOC}}$  as hexane.

(3) The permittee may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by the Executive Secretary.

(b) For the performance test required in paragraph (c)(2) of this condition, Method 25, 25C, or Method 18 of Appendix A of 40 CFR 60 must be used to determine compliance with the 98 weight-percent efficiency or the 20 ppmv outlet concentration level, unless another method to demonstrate compliance has been approved by the Executive Secretary as provided by this condition. Method 3 or 3A shall be used to determine oxygen for correcting the NMOC concentration as hexane to 3 percent. In cases where the outlet concentration is less than 50 ppm NMOC as carbon (8 ppm NMOC as hexane), Method 25A should be used in place of Method 25. If using Method 18 of appendix A of 40 CFR 60, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The

following equation shall be used to calculate efficiency: Control Efficiency =  $(\text{NMOC}_{\text{in}} - \text{NMOC}_{\text{out}}) / (\text{NMOC}_{\text{in}})$  where,  $\text{NMOC}_{\text{in}}$  = mass of NMOC entering control device  $\text{NMOC}_{\text{out}}$  = mass of NMOC exiting control device

(c) The specified methods in paragraphs (c)(1) through (c)(6) of this monitoring section, shall be used to determine whether the gas collection system is in compliance with paragraph (b) of the condition.

(1) For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with (b)(1)(i) of the condition, one of the following equations shall be used. The  $k$  and  $L_o$  kinetic factors should be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42) or other site specific values demonstrated to be appropriate and approved by the Executive Secretary. If  $k$  has been determined as specified in 40 CFR 60.754(a)(4), the value of  $k$  determined from the test shall be used. A value of no more than 15 years shall be used for the intended use period of the gas mover equipment. The active life of the landfill is the age of the landfill plus the estimated number of years until closure.

(i) For sites with unknown year-to-year solid waste acceptance rate:

$$Q_m = 2L_o R (e^{-kc} - e^{-kt})$$

where,

$Q_m$  = maximum expected gas generation flow rate, cubic meters per year  
 $L_o$  = methane generation potential, cubic meters per megagram solid waste  
 $R$  = average annual acceptance rate, megagrams per year  
 $k$  = methane generation rate constant, per year  
 $t$  = age of the landfill at equipment installation plus the time the permittee intends to use the gas mover equipment or active life of the landfill, whichever is less. If the equipment is installed after closure,  $t$  is the age of the landfill at installation, years  
 $c$  = time since closure, years (for an active landfill  $c = 0$  and  $e^{-kc} = 1$ )

(ii) For sites with known year-to-year solid waste acceptance rate:

$$Q_m = \text{Sum } (2 k L_o M_i (e^{-kt_i})) \text{ of } i \text{ through } n$$

where,

$Q_m$  = maximum expected gas generation flow rate, cubic meters per year  
 $k$  = methane generation rate constant, per year  
 $L_o$  = methane generation potential, cubic meters per megagram solid waste  
 $M_i$  = mass of solid waste in the  $i^{\text{th}}$  section, megagrams  
 $t_i$  = age of the  $i^{\text{th}}$  section, years

(iii) If a collection and control system has been installed, actual flow data may be used to project the maximum expected gas generation flow rate instead of, or in conjunction with, the equations in paragraphs (c)(1)(i) and

(ii) of this monitoring section. If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so calculations using the equations in paragraphs (c)(1)(i) or (ii) or other methods shall be used to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment.

(2) For the purposes of determining sufficient density of gas collectors for compliance with paragraph (b)(1)(ii) of this condition, the owner or operator shall design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the Executive Secretary, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards.

(3) For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with (b)(1)(iii), the permittee shall measure gauge pressure in the gas collection header at each individual well, monthly. If a positive pressure exists, action shall be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under (f) of this condition. If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial measurement of positive pressure. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Executive Secretary for approval.

(4) Owners or operators are not required to expand the system as required in paragraph (c)(3) of this monitoring section during the first 180 days after gas collection system startup.

(5) For the purpose of identifying whether excess air infiltration into the landfill is occurring, the permittee shall monitor each well monthly for temperature and nitrogen or oxygen as provided in (i) and (ii) below. If a well exceeds one of these operating parameters, action shall be initiated to correct the exceedance within 5 calendar days. If correction of the exceedance cannot be achieved within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial exceedance. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Executive Secretary for approval.

(i) The nitrogen level shall be determined using Method 3C, unless an alternative test method is established as allowed by this condition.

(ii) Unless an alternative test method is established as allowed by this condition, the oxygen shall be determined by an oxygen meter using Method 3A or 3C except that:

(A) The span shall be set so that the regulatory limit is between 20 and 50 percent of the span;

(B) A data recorder is not required;

(C) Only two calibration gases are required, a zero and span, and ambient air may be used as the span;

(D) A calibration error check is not required;  
(E) The allowable sample bias, zero drift, and calibration drift are  $\pm 10$  percent.

(6) A permittee seeking to demonstrate compliance with paragraph (b)(1)(iv) of this condition through the use of a collection system not conforming to the specifications provided in 40 CFR 60.759 shall provide information satisfactory to the Executive Secretary as specified in (a)(3) demonstrating that off-site migration is being controlled.

(d) For purposes of compliance with paragraph (e) of this condition, a permittee of a controlled landfill shall place each well or design component as specified in the approved design plan as provided in paragraph (a) of this condition. Each well shall be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of:

(1) 5 years or more if active; or

(2) 2 years or more if closed or at final grade.

(e) The following procedures shall be used for compliance with the surface methane operational standard as provided in paragraph (h) of this condition.

(1) After installation of the collection system, the permittee shall monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals (or a site-specific established spacing) for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in paragraph (f) of this monitoring section.

(2) The background concentration shall be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells.

(3) Surface emission monitoring shall be performed in accordance with section 4.3.1 of Method 21 of 40 CFR 60 Appendix A, except that the probe inlet shall be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions.

(4) Any reading of 500 parts per million or more above background at any location shall be recorded as a monitored exceedance and the actions specified in paragraphs (e)(4) (i) through (v) of this monitoring section shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of paragraph (h) of this condition.

(i) The location of each monitored exceedance shall be marked and the location recorded.

(ii) Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance

shall be made and the location shall be re-monitored within 10 calendar days of detecting the exceedance.

(iii) If the re-monitoring of the location shows a second exceedance, additional corrective action shall be taken and the location shall be monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, the action specified in paragraph (e)(4)(v) of this monitoring section shall be taken, and no further monitoring of that location is required until the action specified in paragraph (e)(4)(v) has been taken.

(iv) Any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the 10-day re-monitoring specified in paragraph (e)(4)(ii) or (iii) of this monitoring section shall be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring shows a concentration less than 500 parts per million above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month re-monitoring shows an exceedance, the actions specified in paragraph (e)(4)(iii) or (v) shall be taken.

(v) For any location where monitored methane concentration equals or exceeds 500 parts per million above background three times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the Executive Secretary for approval.

(5) The permittee shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis.

(f) A permittee seeking to comply with the provisions in paragraph (e) of this monitoring section shall comply with the following instrumentation specifications and procedures for surface emission monitoring devices:

(1) The portable analyzer shall meet the instrument specifications provided in section 3 of Method 21 of 40 CFR 60 Appendix A, except that "methane" shall replace all references to VOC.

(2) The calibration gas shall be methane, diluted to a nominal concentration of 500 parts per million in air.

(3) To meet the performance evaluation requirements in section 3.1.3 of Method 21 of appendix A, the instrument evaluation procedures of section 4.4 of Method 21 of appendix A shall be used.

(4) The calibration procedures provided in section 4.2 of Method 21 of appendix A shall be followed immediately before commencing a surface monitoring survey.

(g) The provisions of this condition apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed 5 days for collection systems and shall not exceed 1 hour for treatment or control devices.

(h) A permittee seeking to comply with paragraph (b)(1) of this condition for an active gas collection system shall install a sampling port and a thermometer, other temperature measuring device, or an access port for temperature measurements at each wellhead and:

(1) Measure the gauge pressure in the gas collection header on a monthly basis as provided in (c)(3) of this monitoring section; and

(2) Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as provided in (c)(5) of this monitoring section; and

(3) Monitor temperature of the landfill gas on a monthly basis as provided in (c)(5) of this monitoring section.

(i) A permittee seeking to comply with paragraph (c) of this condition using an enclosed combustor shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment.

(1) A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of  $\pm 1$  percent of the temperature being measured expressed in degrees Celsius or  $\pm 0.5$  degrees Celsius, whichever is greater. A temperature monitoring device is not required for boilers or process heaters with design heat input capacity equal to or greater than 44 megawatts.

(2) A device that records flow to or bypass of the control device. The permittee shall either:

(i) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or

(ii) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

(j) A permittee seeking to comply with paragraph (c) of this condition using an open flare shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment:

(1) A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame.

(2) A device that records flow to or bypass of the flare. The permittee shall either:

(i) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or

(ii) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

(k) A permittee seeking to demonstrate compliance with paragraph (c) of this condition using a device other than an open flare or an enclosed combustor shall provide information satisfactory to the Executive Secretary as provided in this condition describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Executive Secretary shall review the information and either approve it, or request that additional information be submitted. The Executive Secretary may specify additional appropriate monitoring procedures.

(l) A permittee seeking to install a collection system that does not meet the specifications in 40 CFR 60.759 or seeking to monitor alternative parameters to those required by this monitoring condition shall provide information satisfactory to the Executive Secretary as provided in this condition describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Executive Secretary may specify additional appropriate monitoring procedures.

(m) A permittee seeking to demonstrate compliance with paragraph (e) of this monitoring section, shall monitor surface concentrations of methane according to the instrument specifications and procedures provided in paragraph (f) of this monitoring section. Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring.

#### II.B.2.a.2

##### **Recordkeeping:**

(a) A permittee of an MSW landfill subject to the provisions of this condition shall keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report which triggered this condition, the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.

(b) A permittee of a controlled landfill shall keep up-to-date, readily accessible records for the life of the control equipment of the data listed in paragraphs (b)(1) through (b)(4) of this recordkeeping section as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the control device vendor specifications shall be maintained until removal.

(1) Where an permittee subject to the provisions of this condition seeks to demonstrate compliance with paragraph (b) of this condition:

(i) The maximum expected gas generation flow rate as calculated in paragraph (c)(1) of monitoring. The permittee may use another method to determine the maximum gas generation flow rate, if the method has been approved by the Executive Secretary.

(ii) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in 40 CFR 60.759(a)(1).

(2) Where an permittee subject to the provisions of this condition seeks to demonstrate compliance with paragraph (c) of this condition through use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity equal to or greater than 44 megawatts:

(i) The average combustion temperature measured at least every 15 minutes and averaged over the same time period of the performance test.

(ii) The percent reduction of NMOC determined as specified in (c)(2) of this condition achieved by the control device.

(3) Where an permittee subject to the provisions of this condition seeks to demonstrate compliance with (c)(2)(i) of this condition through use of a boiler or process heater of any size: a description of the location at which the collected gas vent stream is introduced into the boiler or process heater over the same time period of the performance testing.

(4) Where an permittee subject to the provisions of this condition seeks to demonstrate compliance with (c)(1) of this condition through use of an open flare, the flare type (i.e., steam-assisted, air-assisted, or non-assisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in 40 CFR 60.18; continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame of the flare flame is absent.

(c) A permittee of a controlled landfill subject to the provisions of this condition shall keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in the monitoring section of this condition as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.

(1) The following constitute exceedances that shall be recorded and reported under paragraph (c) of reporting:

(i) For enclosed combustors except for boilers and process heaters with design heat input capacity of 44 megawatts (150 million British thermal unit per hour) or greater, all 3-hour periods of operation during which the average combustion temperature was more than 28 °C below the average

combustion temperature during the most recent performance test at which compliance with paragraph (c) of this condition was determined.

(ii) For boilers or process heaters, whenever there is a change in the location at which the vent stream is introduced into the flame zone as required under paragraph (b)(3) of this recordkeeping section.

(2) Permittee shall keep up-to-date, readily accessible continuous records of the indication of flow to the control device or the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified under paragraph (i) and (j) of monitoring.

(3) Permittee who uses a boiler or process heater with a design heat input capacity of 44 megawatts or greater to comply with paragraph (c) of this condition shall keep an up-to-date, readily accessible record of all periods of operation of the boiler or process heater. (Examples of such records could include records of steam use, fuel use, or monitoring data collected pursuant to other State, local, Tribal, or Federal regulatory requirements.)

(4) A permittee seeking to comply with the provisions of this condition by use of an open flare shall keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under paragraph (j) of monitoring, and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.

(d) The permittee shall keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector.

(1) The permittee shall keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under paragraph (d) of monitoring.

(2) The permittee shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or non-degradable waste excluded from collection as provided in 40 CFR 60.759(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in 40 CFR 60.759(a)(3)(ii).

(e) The permittee shall keep for at least 5 years up-to-date, readily accessible records of all collection and control system exceedances of the operational standards in paragraph (f) thru (k) of the condition, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.

#### II.B.2.a.3

#### **Reporting:**

(a) A permittee of a controlled landfill shall submit a closure report to the Executive Secretary within 30 days of waste acceptance cessation. The Executive Secretary may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40

CFR 258.60. If a closure report has been submitted to the Executive Secretary, no additional wastes may be placed into the landfill without filing a notification of modification as described under 40 CFR 60.7(a)(4).

(b) A permittee of a controlled landfill shall submit an equipment removal report to the Executive Secretary 30 days prior to removal or cessation of operation of the control equipment.

(1) The equipment removal report shall contain all of the following items:

(i) A copy of the closure report submitted in accordance with paragraph (a) of this reporting section;

(ii) A copy of the initial performance test report demonstrating that the 15 year minimum control period has expired; and

(iii) Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 megagrams or greater of NMOC per year.

(2) The Executive Secretary may request such additional information as may be necessary to verify that all of the conditions for removal in paragraph (d) of this condition have been met.

(c) A permittee of a landfill seeking to comply with this condition using an active collection system designed in accordance with paragraph (b) of this condition shall submit to the Executive Secretary reports every 6 months of the recorded information in (c)(1) through (c)(6) of this paragraph. The initial report shall be submitted within 180 days of installation and start-up of the collection and control system, and shall include the initial performance test report required under 40 CFR 60.8. For enclosed combustion devices and flares, reportable exceedances are defined under paragraph (c) of recordkeeping.

(1) Value and length of time for exceedance of applicable parameters monitored under paragraph (h), (i), (j), and (k) of monitoring.

(2) Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified in monitoring.

(3) Description and duration of all periods when the control device was not operating for a period exceeding 1 hour and length of time the control device was not operating.

(4) All periods when the collection system was not operating in excess of 5 days.

(5) The location of each exceedance of the 500 parts per million methane concentration as provided in paragraph (h) of this condition and the concentration recorded at each location for which an exceedance was recorded in the previous month.

(6) The date of installation and the location of each well or collection system expansion added pursuant to paragraph (c)(3), (d), and (e)(4) of monitoring.

(d) A permittee seeking to comply with paragraph (c) of this condition shall include the following information with the initial performance test report required under 40 CFR 60.8:

(1) A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future collection system expansion;

(2) The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based;

(3) The documentation of the presence of asbestos or non-degradable material for each area from which collection wells have been excluded based on the presence of asbestos or non-degradeable material;

(4) The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on non-productivity and the calculations of gas generation flow rate for each excluded area; and

(5) The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill; and

(6) The provisions for the control of off-site migration.

(e) The permittee shall comply with the reporting requirements of the general provisions of 40 CFR 60 Subpart A and 40 CFR 63 Subpart A, as applicable.

(f) The permittee shall also comply with the reporting requirements of Section I of this permit.

## II.B.2.b

### **Condition:**

The permittee shall meet one of the following requirements for all asbestos disposal operations at the landfill:

(a) there shall be no visible emissions to the outside air from any active waste disposal site where asbestos-containing waste material has been deposited,

(b) at the end of each operating day, or at least once every 24-hour period while the site is in continuous operation, the asbestos-containing waste material that has been deposited at the site during the operating day or previous 24-hour period shall:

- (1) be covered with at least 15 centimeters (6 inches) of compacted nonasbestos-containing material, or
- (2) be covered with a resinous or petroleum-based dust suppression agent that effectively binds dust and controls wind erosion. Such an agent shall be used in the manner and frequency recommended for the particular dust by the dust suppression agent manufacturer to achieve and maintain dust control. Other equally effective dust suppression agents may be used upon prior approval by the Executive Secretary. For purposes of this paragraph, any used, spent, or other waste oil is not considered a dust suppression agent.
- (c) use an alternative emissions control method that has received prior written approval by the U.S. Environmental Protection Agency (USEPA) according to the procedures described in 40 CFR 61.149(c)(2). [Authority granted under 40 CFR 61.154; condition originated in 40 CFR 61.154]

II.B.2.b.1

**Monitoring:**

If the permittee chooses to comply with the no visible emissions provisions of this condition, a visual opacity observation of each active asbestos disposal site shall be performed on a daily basis in accordance with 58 FR 61640 Method 203C.

If the permittee chooses to comply with the daily cover provisions of this condition, a visual inspection of the site(s) where asbestos containing waste material is deposited shall be conducted daily to verify compliance with this condition.

II.B.2.b.2

**Recordkeeping:**

If the permittee chooses to comply with the no visible emissions provisions of this condition, a log of the visual opacity observations shall be maintained as described in Provision S.1 in Section I of this permit. All data required by 40 CFR 60, Appendix A, Method 9 or 58 FR 61640, Method 203C shall also be maintained as described in Provision S.1 in Section I of this permit.

If the permittee chooses to comply with the daily cover provisions of this condition, results of daily visual inspections shall be recorded in a log and maintained as described in Provision S.1 in Section I of this permit.

II.B.2.b.3

**Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.2.c

**Condition:**

Unless a natural barrier adequately deters access by the general public, the permittee shall comply with one of the following:

- (a) the fencing and warning sign requirements of 40 CFR 61.154 (b), or
- (b) at the end of each operating day, or at least once every 24-hour period while the site is in continuous operation, the asbestos-containing waste material that has been

deposited at the site during the operating day or previous 24-hour period shall be covered with at least 15 centimeters (6 inches) of compacted nonasbestos-containing material. [Authority granted under 40 CFR 61.154; condition originated in 40 CFR 61.154]

II.B.2.c.1

**Monitoring:**

If the permittee chooses to comply with the fencing and warning sign provisions of this condition, a visual inspection of the property line including all entrances to the site and/or sections of the site where asbestos containing waste material is deposited shall be conducted quarterly to verify compliance with the fencing and warning sign requirements of 40 CFR 61.154 (b)

If the permittee chooses to comply with the daily cover provisions of this condition, a visual inspection of the site(s) where asbestos containing waste material is deposited shall be conducted daily to verify compliance with this condition.

II.B.2.c.2

**Recordkeeping:**

Results of all inspections shall be recorded in a log and maintained as described in Provision S.1 in Section I of this permit.

II.B.2.c.3

**Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.2.d

**Condition:**

The permittee shall maintain waste shipment records of all asbestos-containing waste material received. In addition to routine shipment-tracking information, the waste shipment records shall document instances of improperly enclosed or uncovered waste, or any asbestos-containing waste material not sealed in leak-tight containers. [Authority granted under 40 CFR 61.154 (e); condition originated in 40 CFR 61.154]

II.B.2.d.1

**Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.2.d.2

**Recordkeeping:**

For all asbestos-containing waste material received, the permittee shall maintain waste shipment records, using a form similar to that shown in 40 CFR 61.149, Figure 4, and include the following information:

(i) The name, address, and telephone number of the waste generator. Waste generator is defined as any owner or operator of a source covered by 40 CFR 61, Subpart M whose act or process produces asbestos-containing waste material.

(ii) The name, address, and telephone number of the transporter(s).

(iii) The quantity of the asbestos-containing waste material in cubic meters (cubic yards).

(iv) The presence of any improperly enclosed or uncovered waste, or any asbestos-containing waste material not sealed in leak-tight containers.

- (v) The date of the receipt.

All Records shall be maintained as described in Provisions I.S.1 of this permit (origin: 40 CFR 61.154(e))

II.B.2.d.3

**Reporting:**

As soon as possible and no longer than 30 days after receipt of the asbestos-containing waste material, the permittee shall send a copy of the signed waste shipment record to the waste generator. The permittee shall report in writing to the Executive Secretary, by the following working day, the presence of a significant amount (either nine (9) or more drums/barrels (35 gallon each) or of seventeen (17) or more plastic bags) of improperly enclosed or uncovered waste and submit a copy of the waste shipment record along with the report.

Upon discovering a discrepancy between the quantity of waste designated on the waste shipment records and the quantity actually received, the permittee shall attempt to reconcile the discrepancy with the waste generator. If the discrepancy is not resolved within 15 days after receiving the waste, the permittee shall immediately submit a written report to the Executive Secretary describing the discrepancy and attempts to reconcile it, and submit a copy of the waste shipment record along with the report. The permittee shall retain a copy of all records and reports required by this condition for at least 5 years. All reports shall be in accordance with Provision I.S.2 of this permit.

II.B.2.e

**Condition:**

The permittee shall maintain, until closure, records of the location, depth and area, and quantity in cubic meters (cubic yards) of asbestos-containing waste material within the disposal site on a map or diagram of the disposal area. [Authority granted under 40 CFR 61.154 (f); condition originated in 40 CFR 61.154]

II.B.2.e.1

**Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.2.e.2

**Recordkeeping:**

Maintain, records of the location, depth and area, and quantity in cubic meters (cubic yards) of asbestos-containing waste material within the disposal site on a map or diagram of the disposal area. All Records shall be maintained as described in Provisions I.S.1 of this permit

II.B.2.e.3

**Reporting:**

Notify the Executive Secretary in writing at least 45 days prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at a waste disposal site and is covered. If the excavation will begin on a date other than the one contained in the original notice, notice of the new start date must be provided to the Executive Secretary at least 10 working days before excavation begins and in no event shall excavation begin earlier than the date specified in the original notification. Include the following information in the notice:

- (1) Scheduled starting and completion dates.

- (2) Reason for disturbing the waste.
- (3) Procedures to be used to control emissions during the excavation, storage, transport, and ultimate disposal of the excavated asbestos-containing waste material. If deemed necessary, the Executive Secretary may require changes in the emission control procedures to be used.
- (4) Location of any temporary storage site and the final disposal site.

All reports shall be in accordance with Provision I.S.2 of this permit.

II.B.2.f

**Condition:**

Upon closure of an asbestos-containing waste disposal site, the permittee shall submit a copy of records of asbestos waste disposal locations and quantities and shall:

- (a) Comply with one of the following:
  - (1) Either discharge no visible emissions to the outside air from an inactive asbestos-containing waste disposal site or
  - (2) Cover the asbestos-containing waste material with at least 15 centimeters (6 inches) of compacted nonasbestos-containing material, and grow and maintain a cover of vegetation on the area adequate to prevent exposure of the asbestos-containing waste material. In desert areas where vegetation would be difficult to maintain, at least 8 additional centimeters (3 inches) of well-graded, nonasbestos crushed rock may be placed on top of the final cover instead of vegetation and maintained to prevent emissions; or
  - (3) Cover the asbestos-containing waste material with at least 60 centimeters (2 feet) of compacted nonasbestos-containing material, and maintain it to prevent exposure of the asbestos-containing waste; or
  - (4) For inactive waste disposal sites for asbestos tailings, a resinous or petroleum-based dust suppression agent that effectively binds dust to control surface air emissions may be used instead of the methods in paragraphs (a) (1), (2), and (3) of this section. Use the agent in the manner and frequency recommended for the particular asbestos tailings by the manufacturer of the dust suppression agent to achieve and maintain dust control. Obtain prior written approval of USEPA to use other equally effective dust suppression agents. For purposes of this paragraph, any used, spent, or other waste oil is not considered a dust suppression agent.
- (b) Unless a natural barrier adequately deters access by the general public, install and maintain warning signs and fencing as follows, or comply with paragraph (a)(2) or (a)(3) of this condition:

- (1) Display warning signs at all entrances and at intervals of 100 m (328 ft) or less along the property line of the site or along the perimeter of the sections of the site where asbestos-containing waste material was deposited. The warning signs must:
  - (i) Be posted in such a manner and location that a person can easily read the legend; and
  - (ii) Conform to the requirements for 51 cm×36 cm (20"×14") upright format signs specified in 29 CFR 1910.145(d)(4) and this paragraph; and
  - (iii) Display the following legend in the lower panel with letter sizes and styles of a visibility at least equal to those specified in this paragraph.

Legend	Notation
Asbestos Waste Disposal Site	2.5 cm (1 inch) Sans Serif, Gothic or Block
Do Not Create Dust	1.9 cm (3/4 inch) Sans Serif, Gothic or Block
Breathing Asbestos is Hazardous to Your Health	14 Point Gothic

Spacing between any two lines must be at least equal to the height of the upper of the two lines.

- (2) Fence the perimeter of the site in a manner adequate to deter access by the general public.
  - (3) When requesting a determination on whether a natural barrier adequately deters public access, supply information enabling the Administrator to determine whether a fence or a natural barrier adequately deters access by the general public.
- (c) In lieu of complying with the requirements of paragraph (a) or (b) of this condition, the permittee may use an alternative control method that has received prior approval of the USEPA. [Authority granted under 40 CFR 61.154 (g); condition originated in 40 CFR 61.151]

II.B.2.f.1

**Monitoring:**

A visual inspection of each closed site where asbestos-containing waste material is deposited shall be conducted quarterly to verify compliance with all the requirements of 40 CFR 61.151

II.B.2.f.2

**Recordkeeping:**

Results of all inspections shall be recorded in a log and maintained as described in Provision S.1 in Section I of this permit

II.B.2.f.3

**Reporting:**

- (a) Notify the Executive Secretary in writing at least 45 days prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at a waste disposal site and is covered. If the excavation will begin on a date other than the one contained in the original notice, notice of the new start date must be provided to the Executive Secretary at least 10 working days before excavation begins and in no event shall excavation begin earlier than the date specified in the original notification. Include the following information in the notice:
  - (1) Scheduled starting and completion dates.
  - (2) Reason for disturbing the waste.
  - (3) Procedures to be used to control emissions during the excavation, storage, transport, and ultimate disposal of the excavated asbestos-containing waste material. If deemed necessary, the Executive Secretary may require changes in the emission control procedures to be used.
  - (4) Location of any temporary storage site and the final disposal site.
- (b) Within 60 days of a site becoming inactive and after the effective date of this subpart, record, in accordance with State law, a notation on the deed to the facility property and on any other instrument that would normally be examined during a title search; this notation will in perpetuity notify any potential purchaser of the property that:
  - (1) The land has been used for the disposal of asbestos-containing waste material;
  - (2) The survey plot and record of the location and quantity of asbestos-containing waste disposed of within the disposal site required in 40 CFR 61.154(f) have been filed with the USEPA; and
  - (3) The site is subject to 40 CFR 61, Subpart M.

II.B.2.g

**Condition:**

At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate any permitted plant equipment, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Executive Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. [Authority granted under 40 CFR 60.11(d); condition originated in 40 CFR 60.11(d)]

II.B.2.g.1

**Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.2.g.2

**Recordkeeping:**

Permittee shall document activities performed to assure proper operation and maintenance. Records shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.2.g.3

**Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.3

**Conditions on Cold Cleaning Unit ( Parts Washer)**

II.B.3.a

**Condition:**

The permittee shall ensure that the following conditions are met:

(1) Each solvent degreaser is equipped with a cover which shall remain closed except during actual loading, unloading or handling of parts in cleaner. The cover shall be designed so that it can be easily operated with one hand if

- (a) the volatility of the solvent is greater than 2 kPa (15 mm Hg or 0.3 psi) measured at 38 degrees C (100 degrees F),
- (b) the solvent is agitated, or
- (c) the solvent is heated.

(2) An internal draining rack for cleaned parts shall be installed on which parts shall be drained until all dripping ceases. If the volatility of the solvent is greater than 4.3 kPa (32 mm Hg at 38 degrees C (100 degrees F)), the drainage facility must be internal, so that parts are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

(3) Waste or used solvent shall be stored in covered containers. Waste solvents or waste materials which contain solvents shall be disposed of by recycling, reclaiming, by incineration in an incinerator approved to process hazardous materials, or by an alternate means approved by the executive secretary.

(4) Tanks, containers and all associated equipment shall be maintained in good operating condition and leaks shall be repaired immediately or the degreaser shall be shutdown.

(5) Written procedures for the operation and maintenance of the degreasing or solvent cleaning equipment shall be permanently posted in an accessible and conspicuous location near the equipment.

(6) If the solvent volatility is greater than 4.3 kPa (33 mm Hg or 0.6 psi) measured at 38 degrees C (100 degrees F), or if solvent is heated above 50 degrees C (120 degrees F), then one of the following control devices shall be used:

- (a) freeboard that gives a freeboard ratio greater than 0.7;
- (b) water cover if the solvent is insoluble in and heavier than water;
- (c) other systems of equivalent control, such as a refrigerated chiller or carbon absorption.

(7) If used, the solvent spray shall be a solid fluid stream at a pressure which does not cause excessive splashing and may not be a fine, atomized or shower type spray. [Authority granted under R307-335-2; condition originated in R307-335-2]

II.B.3.a.1

**Monitoring:**

A visual observation shall be conducted monthly for all equipment and applicable work practices.

II.B.3.a.2

**Recordkeeping:**

Results of monthly inspections and the volatility of the solvent(s) being used shall be recorded and maintained as described in Provision I.S.1 of this permit.

II.B.3.a.3

**Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.C. **Emissions Trading.**

(R307-415-6a(10))

Not applicable to this source.

II.D. **Alternative Operating Scenarios.**

(R307-415-6a(9))

Not applicable to this source.

**Section III: PERMIT SHIELD**

A permit shield was not granted for any specific requirements.

**Section IV: ACID RAIN PROVISIONS.**

**This source is not subject to Title IV. This section is not applicable.**

## REVIEWER COMMENTS

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**1. Comment on an item originating in 40 CFR 60.154 regarding MSW Landfill (Unit Landfill)**

Definition of "Significant amount": A significant amount of waste is hereby defined as one cubic meter of asbestos-containing waste material. Based on EPA standard conversion factors for typical asbestos-waste containers, one cubic meter of material is approximately equal to 9.8 drums or barrels (35 gallon each) or 17.4 plastic bags. [Comment last updated on 5/21/2002]

**2. Comment on an item originating in R307-307 regarding permitted source (Source-wide)**

Salting and Sanding Requirements: R307-307 requires that any person who applies salt, crushed slag or sand to roads in Salt Lake, Davis, or Utah County's shall maintain records of material applied as outlined in the permit. It also requires the salt to be at least 92% sodium chloride (NaCl) unless they vacuum sweep every arterial roadway within three days of the end of the storm. Since the landfill does not salt or sand any roadways that meet the definition of arterial as shown on the local Urbanized Area map specified in the rule, they are not subject to the 92% limit and are only required to keep the records required by the rule. [Comment last updated on 5/28/2002]